

IV-19
ENCLOSURE
TO DEC 1, 2005
LETTERS

IDAPA 58 - DEPARTMENT OF ENVIRONMENTAL QUALITY

58.01.02 - WATER QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS

DOCKET NO. 58-0102-0503

NOTICE OF RULEMAKING - PROPOSED RULE

AUTHORITY: In compliance with Section 67-5221(1), Idaho Code, notice is hereby given that this agency has proposed rulemaking. This action is authorized by Sections 39-105, 39-107, and 39-3601 *et seq.*, Idaho Code.

PUBLIC HEARING SCHEDULE: No hearings have been scheduled. Pursuant to Section 67-5222(2), Idaho Code, a public hearing will be held if requested in writing by twenty-five (25) persons, a political subdivision, or an agency. Written requests for a hearing must be received by the undersigned on or before September 23, 2005. If no such written request is received, a public hearing will not be held.

DESCRIPTIVE SUMMARY: The purpose of this rulemaking is to bring Idaho's toxics criteria up to date with current science and recommendations of the U.S. Environmental Protection Agency (EPA). The Department of Environmental Quality (DEQ) proposes to revise the human health criteria (columns C1 & C2) in Section 210 to account for revised fish consumption rates and newer information in the Integrated Risk Information System (IRIS) database on health effects, and to adopt an Idaho specific cadmium aquatic life criterion based on recalculation using additional, more recent toxicity data that has become available since EPA's 2001 cadmium criteria recommendation. Development of the proposed cadmium criteria is discussed in a draft technical support document, "Cadmium Risks to Freshwater Life: Predicted low-effect values in ambient waters based upon laboratory and field studies," which is available at www.deq.idaho.gov/rules/water/58_0102_0503_proposed.cfm or by contacting Don Essig at (208)373-0119.

Everyone in Idaho who either discharges toxics listed in Section 210 to surface waters of Idaho, or those who recreate in or obtain their drinking water from surface waters of Idaho, may be interested in commenting on this proposed rule. The proposed rule text is in legislative format. Language the agency proposes to add is underlined. Language the agency proposes to delete is struck out. It is these additions and deletions to which public comment should be addressed.

After consideration of public comments, DEQ intends to present the final proposal to the Board of Environmental Quality in November 2005 for adoption of a pending rule. The rule is expected to be final and effective upon the adjournment of the 2006 legislative session if approved by the Legislature.

IDAHO CODE SECTION 39-107D STATEMENT: The revisions included in this proposed rule are not broader in scope, nor more stringent, than federal regulations and do not regulate an activity not regulated by the federal government.

IDAHO CODE SECTION 67-5221(1)(c) FISCAL IMPACT STATEMENT: No negative impact occurs from this rulemaking; provision is not applicable.

NEGOTIATED RULEMAKING: The text of the proposed rule has been drafted based on discussions held during a negotiation conducted pursuant to Idaho Code Section 67-5220 and IDAPA 04.11.01.812-815. The Notice of Negotiated Rulemaking was published in the Idaho Administrative Bulletin, April 6, 2005, Vol. 05-4, page 21.

GENERAL INFORMATION: For more information about DEQ's programs and activities, visit DEQ's web site at www.deq.idaho.gov.

ASSISTANCE ON TECHNICAL QUESTIONS AND SUBMISSION OF WRITTEN COMMENTS: For assistance on questions concerning this proposed rule, contact Don Essig at (208) 373-0119, Don.Essig@deq.idaho.gov.

Anyone may submit written comments on the proposed rulemaking by mail, fax or e-mail at the address below. DEQ will consider all written comments received by the undersigned on or before October 7, 2005.

Dated this 3rd day of August, 2005.

Paula J. Wilson
Hearing Coordinator
Department of Environmental Quality
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THE FOLLOWING IS THE TEXT OF DOCKET NO. 58-0102-0503

210. NUMERIC CRITERIA FOR TOXIC SUBSTANCES FOR WATERS DESIGNATED FOR AQUATIC LIFE, RECREATION, OR DOMESTIC WATER SUPPLY USE.

01. Criteria for Toxic Substances. The criteria of Section 210 apply to surface waters of the state as follows. (5-3-03)

a. Columns B1, B2, and C2 of the following table apply to waters designated for aquatic life use. (5-3-03)

b. Column C2 of the following table applies to waters designated for recreation use. (5-3-03)

c. Column C1 of the following table applies to waters designated for domestic water supply use.

A		B Aquatic life		Human health for consumption of:	
(Number) Compound	^a CAS Number	^b CMC (µg/L) B1	^b CCC (µg/L) B2	Water & organisms (µg/L) C1	Organisms only (µg/L) C2
1 Antimony	7440360			5.6 lc	640 lc
2 Arsenic	7440382	340 e	150 e	50 d	50 d
3 Beryllium	7440417			h	h
4 Cadmium	7440439	2 1.3 i	4.0.6 i	h	h
5a Chromium III	16065831	570 i	74 i	h	h
5b Chromium VI	18540299	16 e	11 e	h	h
6 Copper	7440508	17 i	11 i		
7 Lead	7439921	65 i	2.5 i	h	h
8a Mercury	7439976	g	g		
8b Methylmercury	22967926				0.3 mg/kg p
9 Nickel	7440020	470 i	52 i	610 c	4600 c
10 Selenium	7782492	20 f	5 f	<u>170</u> h	<u>4200</u> h

DEPARTMENT OF ENVIRONMENTAL QUALITY
Water Quality Standards and Wastewater Treatment Requirements

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11 Silver	7440224	3.4 i			
12 Thallium	7440280			4.70 <u>24</u> c	6.30 <u>47</u> c
13 Zinc	7440666	120 i	120 i	7400	26000
14 Cyanide	57125	22 j	5.2 j	700 <u>140</u> c	220000 <u>140</u> c
15 Asbestos	1332214			7,000,000 fibers/L k	
16 2, 3, 7, 8-TCDD Dioxin	1746016			0.0000000 4305 l	0.0000000 44051 l
17 Acrolein	107028			320 <u>190</u>	780 <u>290</u>
18 Acrylonitrile	107131			0.05 91 cl	0.66 25 cl
19 Benzene	71432			42.2 cl	751 cl
20 Bromoform	75252			4.3 cl	360 <u>140</u> cl
21 Carbon Tetrachloride	56235			0.26 3 cl	4.41 <u>6</u> cl
22 Chlorobenzene	108907			680 <u>130</u> c	240 <u>1600</u> c
23 Chlorodibromomethane	124481			0.4 40 cl	3413 cl
24 Chloroethane	75003				
25 2-Chloroethylvinyl Ether	110758				
26 Chloroform	67663			5.7 el	470 el
27 Dichlorobromomethane	75274			0.27 55 cl	2217 cl
28 1,1-Dichloroethane	75343				
29 1,2-Dichloroethane	107062			0.38 cl	9937 cl
30 1,1-Dichloroethylene	75354			0.057 <u>330</u> el	3.27 <u>100</u> el
31 1,2-Dichloropropane	78875			<u>0.50</u> cl	<u>15</u> cl
32 1,3-Dichloropropylene	542756			40.34 e	1700 <u>21</u> e
33 Ethylbenzene	100414			3400 <u>530</u> c	29000 <u>2100</u> c
34 Methyl Bromide	74839			487 c	4000 <u>1500</u> c
35 Methyl Chloride	74873			h	h
36 Methylene Chloride	75092			4.76 cl	1600 <u>590</u> cl
37 1,1,2,2-Tetrachloroethane	79345			0.17 cl	114.0 cl
38 Tetrachloroethylene	127184			0.86 9 l	8.85 <u>3</u> l
39 Toluene	108883			6800 <u>1300</u> c	200000 <u>15000</u> c

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40 1,2-Trans-Dichloroethylene	156605			140 c	10000 c
41 1,1,1-Trichloroethane	71556			h	h
42 1,1,2-Trichloroethane	79005			0.659 cl	4216 cl
43 Trichloroethylene	79016			2.75 l	8430 l
44 Vinyl Chloride	75014			20.025 l	5252.4 l
45 2-Chlorophenol	95578			81 c	150 c
46 2,4-Dichlorophenol	120832			9377 c	7290 c
47 2,4-Dimethylphenol	105679			380 c	850 c
48 2-Methyl-4,6-Dinitrophenol	534521			13.4	765280
49 2,4-Dinitrophenol	51285			7069 c	4405300 c
50 2-Nitrophenol	88755				
51 4-Nitrophenol	100027				
52 3-Methyl-4-Chlorophenol	59507				
53 Pentachlorophenol	87865	20 m	13 m	0.287 cl	8.23.0 cl
54 Phenol	108952			21000 c	461700000 c
55 2,4,6-Trichlorophenol	88062			2.1.4 cl	6.62.4 cl
56 Acenaphthene	83329			670 c	990 c
57 Acenaphthylene	208968				
58 Anthracene	120127			968300 c	4440000 c
59 Benzidine	92875			0.00042086 cl	0.0006420 cl
60 Benzo(a)Anthracene	56553			0.00238 cl	0.0318 cl
61 Benzo(a)Pyrene	50328			0.00238 cl	0.0318 cl
62 Benzo(b)Fluoranthene	205992			0.00238 cl	0.0318 cl
63 Benzo(ghi)Perylene	191242				
64 Benzo(k)Fluoranthene	207089			0.00238 cl	0.0318 cl
65 Bis(2-Chloroethoxy) Methane	111911				
66 Bis(2-Chloroethyl)Ether	111444			0.0340 cl	4.40.53 cl

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67 Bis(2-Chloroisopropyl) Ether	108601			1400 c	4706 5000 c
68 Bis(2-Ethylhexyl) Phthalate	117817			1.82 cl	5.92 2 cl
69 4-Bromophenyl Phenyl Ether	101553				
70 Butylbenzyl Phthalate	85687			1500 c	1900 c
71 2-Chloronaphthalene	91587			1000 c	1600 c
72 4-Chlorophenyl Phenyl Ether	7005723				
73 Chrysene	218019			0.00238 cl	0.0318 cl
74 Dibenzo (a,h) Anthracene	53703			0.00238 cl	0.0318 cl
75 1,2-Dichlorobenzene	95501			2700 420 c	1700 300 c
76 1,3-Dichlorobenzene	541731			4003 20	2600 960
77 1,4-Dichlorobenzene	106467			4006 3	2600 190
78 3,3'-Dichlorobenzidine	91941			0.0421 cl	0.07728 cl
79 Diethyl Phthalate	84662			2317 000 c	4204 000 c
80 Dimethyl Phthalate	131113			3432 70000	2911 00000
81 Di-n-Butyl Phthalate	84742			27000 c	42000 4500 c
82 2,4-Dinitrotoluene	121142			0.11 l	0.43 4 l
83 2,6-Dinitrotoluene	606202				
84 Di-n-Octyl Phthalate	117840				
85 1,2-Diphenylhydrazine	122667			0.04036 cl	0.5420 cl
86 Fluoranthene	206440			3001 30 c	3701 40 c
87 Fluorene	86737			13100 c	4405 300 c
88 Hexachlorobenzene	118741			0.0007528 cl	0.0007729 cl
89 Hexachlorobutadiene	87683			0.44 cl	5018 cl
90 Hexachloro-cyclopentadiene	77474			240 e	4701 100 e
91 Hexachloroethane	67721			1.94 cl	8.93 3 cl
92 Ideno (1,2,3-cd) Pyrene	193395			0.00238 cl	0.0318 cl

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93 Isophorone	78591			8.4 <u>35</u> cl	600 <u>960</u> cl
94 Naphthalene	91203				
95 Nitrobenzene	98953			17 c	400 <u>690</u> c
96 N-Nitrosodimethylamine	62759			0.00069 cl	8.4 <u>3.0</u> cl
97 N-Nitrosodi-n-Propylamine	621647			<u>0.0050</u> cl	<u>0.51</u> cl
98 N-Nitrosodiphenylamine	86306			5.0 <u>3.3</u> cl	46 <u>0</u> cl
99 Phenanthrene	85018				
100 Pyrene	129000			960 <u>830</u> c	44 <u>000</u> c
101 1,2,4-Trichlorobenzene	120821			<u>35</u>	<u>70</u>
102 Aldrin	309002	3		0.00043 <u>049</u> cl	0.00044 <u>050</u> cl
103 alpha-BHC	319846			0.0039 <u>26</u> cl	0.043 <u>049</u> cl
104 beta-BHC	319857			0.044 <u>091</u> cl	0.046 <u>17</u> cl
105 gamma-BHC (Lindane)	58899	2	0.08	0.049 <u>8</u> l	0.06 <u>31.8</u> l
106 delta-BHC	319868				
107 Chlordane	57749	2.4	0.0043	0.00067 <u>80</u> cl	0.00069 <u>81</u> cl
108 4,4'-DDT	50293	1.1	0.001	0.00069 <u>22</u> cl	0.00069 <u>22</u> cl
109 4,4'-DDE	72559			0.00069 <u>22</u> cl	0.00069 <u>22</u> cl
110 4,4'-DDD	72548			0.00083 <u>31</u> cl	0.00084 <u>31</u> cl
111 Dieldrin	60571	2.5	0.0019	0.00044 <u>052</u> cl	0.00044 <u>054</u> cl
112 alpha-Endosulfan	959988	0.22	0.056	0.9 <u>362</u> c	2.0 <u>89</u> c
113 beta-Endosulfan	33213659	0.22	0.056	0.9 <u>362</u> c	2.0 <u>89</u> c
114 Endosulfan Sulfate	1031078			0.9 <u>362</u> c	2.0 <u>89</u> c
115 Endrin	72208	0.18	0.0023	0.760 <u>59</u> c	0.840 <u>60</u> c
116 Endrin Aldehyde	7421934			0.762 <u>9</u> c	0.843 <u>0</u> c
117 Heptachlor	76448	0.52	0.0038	0.00024 <u>079</u> cl	0.00024 <u>079</u> cl
118 Heptachlor Epoxide	1024573	0.52	0.0038	0.00040 <u>39</u> cl	0.00044 <u>039</u> cl
119 Polychlorinated Biphenyls PCBs:	n		0.014 n	0.000470 <u>64</u> clo	0.000470 <u>64</u> clo

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(Number) Compound	^a CAS Number	^b CMC (µg/L) B1	^b CCC (µg/L) B2	Water & organisms (µg/L) C1	Organisms only (µg/L) C2
120 Toxaphene	8001352	0.73	0.0002	0.0007328 cl	0.0007528 cl
121 Chlorine		19 k	11 k		
<p>Note to table: Table values are from 57 FR 60910, December 22, 1992 (National Toxics Rule) except as noted.</p> <p>Table Footnotes</p> <p>a. Chemical Abstracts Service (CAS) registry numbers which provide a unique identification for each chemical.</p> <p>b. See Definitions, Section 003010 of these rules.</p> <p>c. This criterion has been revised to reflect The Environmental Protection Agency's q1* or RfD, as contained in the Integrated Risk Information System (IRIS) as of December 22, 1992 May 17, 2002. The fish tissue bioconcentration factor (BCF) from the 1980 Ambient Water Quality Criteria document was retained in each case.</p> <p>d. Inorganic form only. The criterion for arsenic is the MCL in effect as of April 5, 2000.</p> <p>e. Criteria for these metals are expressed as a function of the water effect ratio, WER, as defined in Subsection 210.03.c.iii. CMC = column B1 value X WER. CCC = column B2 value X WER.</p> <p>f. Criterion expressed as total recoverable (unfiltered) concentrations.</p> <p>g. No aquatic life criterion is adopted for inorganic mercury. However, the narrative criteria for toxics in Section 200 of these rules applies. The Department believes application of the human health criterion for methylmercury will be protective of aquatic life in most situations.</p> <p>h. No numeric human health criteria has been established for this contaminant. However, permit authorities should address this contaminant in NPDES permit actions using the narrative criteria for toxics from Section 200 of these rules.</p> <p>i. Aquatic life criteria for these metals are expressed as a function of total hardness (mg/L as calcium carbonate), the pollutant's water effect ratio (WER) as defined in Subsection 210.03.c.iii and multiplied by an appropriate dissolved conversion factor as defined in Subsection 210.02. For comparative purposes only, the values displayed in this table are shown as dissolved metal and correspond to a total hardness of one hundred (100) mg/L and a water effect ratio of one (1.0).</p> <p>j. Criteria are expressed as weak acid dissociable (WAD) cyanide.</p> <p>k. Total chlorine residual concentrations.</p> <p>l. EPA guidance allows states to choose a risk factor of 10⁻⁴ to 10⁻⁶. Idaho has chosen to base this criterion is based on carcinogenicity of 10⁻⁶ risk.</p> <p>m. Aquatic life criteria for pentachlorophenol are expressed as a function of pH, and are calculated as follows. Values displayed above in the table correspond to a pH of seven and eight tenths (7.8). CMC = exp(1.005(pH)-4.830) CCC = exp(1.005(pH)-5.290)</p> <p>n. PCBs are a class of chemicals which include Aroclors, 1242, 1254, 1221, 1232, 1248, 1260, and 1016, CAS numbers 53469219, 11097691, 11104282, 11141165, 12672296, 11096825 and 12674112 respectively. The aquatic life criteria apply to this set of PCBs.</p>					

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(Number) Compound	^a CAS Number	^b CMC (µg/L) B1	^b CCC (µg/L) B2	Water & organisms (µg/L) C1	Organisms only (µg/L) C2

o. This criterion applies to total PCBs, (e.g. the sum of all congener, isomer, or Aroclor analyses).

p. This fish tissue residue criterion (TRC) for methylmercury is based on a human health reference dose (RfD) of 0.0001 mg/kg body weight-day; a relative source contribution (RSC) estimated to be 27% of the RfD; a human body weight (BW) of 70 kg (for adults); and a total fish consumption rate of 0.0175 kg/day for the general population, summed from trophic level (TL) breakdown of TL2 = 0.0038 kg fish/day + TL3 = 0.0080 kg fish/day + TL4 = 0.0057 kg fish/day. This is a criterion that is protective of the general population. A site-specific criterion or a criterion for a particular subpopulation may be calculated by using local or regional data, rather than the above default values, in the formula: $TRC = [BW \times (RfD - (RSC \times RfD))] / \Sigma TL$. In waters inhabited by species listed as threatened or endangered under the Endangered Species Act or designated as their critical habitat, the Department will apply the human health fish tissue residue criterion for methylmercury to the highest trophic level available for sampling and analysis.

(4-6-05)()

02. Factors for Calculating Hardness Dependent Metals Criteria. Hardness dependent metals criteria are calculated using values from the following table in the equations: (5-3-03)

a. $CMC = WER \exp\{m_A[\ln(\text{hardness})] + b_A\}$ X Acute Conversion Factor. (5-3-03)

b. $CCC = WER \exp\{m_C[\ln(\text{hardness})] + b_C\}$ X Chronic Conversion Factor.

Metal	m_A	b_A	m_C	b_C	^a Acute Conversion Factor	^a Chronic Conversion Factor
Arsenic	b	b	b	b	1.0	1.0
Cadmium	1.0166 0.8367	-3.924 -3.560	0.7852 0.6238	-3.490 -3.340	0.944 see footnote a	0.909
Chromium (III)	0.819	3.7256	0.8190	0.6848	0.316	0.860
Chromium (VI)	b	b	b	b	0.982	0.962
Copper	0.9422	-1.464	0.8545	-1.465	0.960	0.960
Lead	1.273	-1.460	1.273	-4.705	0.791	0.791
Mercury	b	b	b	b	0.85	0.85
Nickel	0.846	2.255	0.8460	0.0584	0.998	0.997
Silver	1.72	-6.52	c	c	0.85	c
Zinc	0.8473	0.884	0.8473	0.884	0.978	0.986